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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,532	03/26/2004	Chih C. Tsien	80107.161US1	8953

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EXAMINER

SAMS, MATTHEW C

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 04/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/810,532

Applicant(s)

TSIEN ET AL.

Examiner

Matthew C. Sams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

Information Disclosure Statement

2. The information disclosure statement filed on 8/10/2005 has been considered.

Drawings

3. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the drawing were completed by hand. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

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applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-24 are rejected under 35 U.S.C. 102(a & e) as being anticipated by Diener et al. (US 2003/0198200 hereafter, Diener).

Regarding claim 1, Diener teaches a receiver to detect radar signals in spectrum used by wireless network signals (Pages 8-9 [0111] and Page 10 [0156]) and a network interface to communicate dynamic frequency selection information to at least one transmitter in a wireless network. (Page 3 [0036] and Page 5 [0063] through Page 6 [0075])

Regarding claim 2, Diener teaches the network interface is configured to provide information regarding spectrum used by the radar signals. (Page 10 [0156])

Regarding claim 3, Diener teaches the network interface is configured to provide information regarding spectrum not used by the radar signals. (Page Pages 8-9 [0111] and Page 10 [0156-0159])

Regarding claim 4, Diener teaches the network interface comprises a wireless network interface. (Fig. 1 and Page 1 [0003-0004])

Regarding claim 5, Diener teaches the wireless network interface comprises an 802.11 compliant physical layer. (Fig. 1 [1030, 1040 & 1050], Page 1 [0004] and Page 2 [0032])

Regarding claim 6, Diener teaches the wireless network interface transmits in a radar-free channel. (Pages 8-9 [0111] and Page 10 [0156])

Regarding claim 7, Diener teaches the 802.11 compliant physical layer is capable of transmitting at frequencies of between 5.15 GHz and 5.25 GHz. (Page 3 [0033] and Page 5 [0065])

Regarding claim 8, Diener teaches the wireless network interface is configured to associate with an access point or a mobile station. (Fig. 6 [12 & 20] and Page 4 [0057-0061])

Regarding claim 9, Diener teaches the dynamic frequency selection information comprises a spectral location of radar signals. (Page Pages 8-9 [0111], Page 9 [0147] and Page 10 [0156-0159])

Regarding claim 10, Diener teaches the dynamic frequency selection information comprises a channel open for wireless local area network use. (Page 3 [0036] and Page 5 [0063] through Page 6 [0075])

Regarding claim 11, Diener teaches the receiver comprises a radio frequency front end (Fig. 6 [12 & 14]), a radar signal analyzer (Fig. 6 [20]) and a memory device (Fig. 6 [32 & 42]) to record channel records. (Page 12 [0215] & Page 13 [Claim 23])

Regarding claim 12, Diener teaches the radio frequency front end includes circuits to scan in one or more bands between substantially 5 GHz and 6 GHz. (Page 3 [0033] & Page 11 [0208-0211])

Regarding claim 13, Diener teaches the radio frequency front end includes circuits to scan between 5.25 GHz and 5.725 GHz. (Page 3 [0033] & Page 11 [0208-0211])

Regarding claim 14, Diener teaches the network interface includes circuits to transmit wireless local area network signals below substantially 5.25 GHz. (Page 3 [0033] & Page 11 [0208-0211])

Regarding claim 15, Diener teaches a method of scanning channels in a frequency spectrum to detect signals (Pages 8-9 [0111] and Page 10 [0156]), storing information describing the signals in the channels (Page 12 [0215] & Page 13 [Claim 23]) and providing dynamic frequency selection information to a plurality of transmitters in a wireless network. (Page 3 [0036] and Page 5 [0063] through Page 6 [0075])

Regarding claim 16, Diener teaches scanning channels comprising scanning frequency channels below 6 GHz. (Page 3 [0033] & Page 11 [0208-0211])

Regarding claim 17, Diener teaches scanning channels comprising scanning frequency channels above 5.25 GHz. (Page 3 [0033] & Page 11 [0208-0211])

Regarding claim 18, Diener teaches providing dynamic frequency selection information to a plurality of transmitters comprising transmitting at between 5.15 GHz and 5.25 GHz. (Page 3 [0033] & Page 11 [0208-0211])

Regarding claim 19, Diener teaches providing dynamic frequency selection information to a plurality of transmitters comprising transmitting packets to access points across a wired network. (Fig. 6 [12 & 20] and Page 4 [0057-0061])

Regarding claim 20, Diener teaches a dynamic frequency selection information to a plurality of transmitters comprises identifying a channel to which the wireless network should move. (Page 9 [0153])

Regarding claim 21, the limitations of claim 21 are rejected as being the same reason set forth above in claim 15.

Regarding claim 22, the limitations of claim 22 are rejected as being the same reason set forth above in claim 18.

Regarding claim 23, the limitations of claim 23 are rejected as being the same reason set forth above in claim 19.

Regarding claim 24, the limitations of claim 24 are rejected as being the same reason set forth above in claim 20.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diener in view of Ginzburg et al. (US 2004/0264394 hereafter, Ginzburg).

Regarding claim 25, Diener teaches an electronic system comprising a receiver to detect radar signals in spectrum used by wireless network signals (Pages 8-9 [0111] and Page 10 [0156]) and a network interface to communicate dynamic frequency selection information to at least one transmitter in a wireless network. (Page 3 [0036] and Page 5 [0063] through Page 6 [0075]) Diener differs from the claimed invention by not explicitly reciting the use of an omni-directional antenna.

In an analogous art, Ginzburg teaches a multi-channel wireless local area network system for determining channel selection includes the use of omni-directional antennas. (Page 4 [Claim 5]) At the time the invention was made, it would have been obvious to one of ordinary skill in the art to implement the invention of Diener after modifying it to incorporate the omni-directional antennas of Ginzburg. One of ordinary skill in the art would have been motivated to do this since omni-directional antennas do not require being pointed towards the source and are ideal for mobile devices.

Regarding claim 26, Diener in view of Ginzburg teaches a wireless network interface comprises an 802.11 compliant physical layer. (Diener Fig. 1 [1030, 1040 & 1050], Page 1 [0004] and Page 2 [0032])

Regarding claim 27, Diener in view of Ginzburg teaches the wireless network interface transmits in a radar-free channel. (Diener Pages 8-9 [0111] and Page 10 [0156])

Regarding claim 28, Diener in view of Ginzburg teaches the 802.11 compliant physical layer is capable of transmitting between 5.15 GHz and 5.25 GHz. (Diener Page 3 [0033] & Page 11 [0208-0211])

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US-6,697,013 to McFarland et al. regarding radar detection and dynamic frequency selection for WLAN networks.

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- US 2004/0151137 to McFarlan et al. regarding methods of implementing a dynamic frequency selection feature for WLAN devices.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew C. Sams whose telephone number is (571)272-8099. The examiner can normally be reached on M-F 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571)272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MCS
3/21/2006


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SUPERVISORY PRIMARY EXAMINER